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**Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PLASMA OR SERUM MARKER AND PROCESS FOR DETECTION OF CANCER

(57) Abstract: This disclosures provide, in one aspect, a method for detecting non-clinically diagnosed cancer in patient. In one embodiment, the method includes extracting blood serum or plasma from the patient, and then detecting beta-catenin RNA in the blood serum or plasma. In addition, in this embodiment, the method includes determining the presence of the cancer based on the detected beta-catenin RNA. In another aspect, this disclosure provides another embodiment of a method for detecting non-clinically diagnosed cancer in a patient. In this embodiment, the method includes extracting blood serum or plasma from the patient, and then detecting beta-catenin DNA in the blood serum or plasma. In addition, in this embodiment, the method includes determining the presence of the cancer based on the detected beta-catenin DNA. Related methods for detecting non-clinically diagnosed cancer in a patient comprising detecting beta-catenin-associated gene RNA, and beta-catenin-associated gene DNA, in the blood serum or plasma are also disclosed.

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# INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US03/20587

## A. CLASSIFICATION OF SUBJECT MATTER.

IPC(7) : C07H 21/04; C12Q 1/68

US CL : 435/6; 536/23.1

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/6; 536/23.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	MULCAHY et al. Cancer and mutant DNA in blood plasma. The Lancet. 07 September 1996, Vol. 348, page 28, see entire document.	1-20
Y	ANKER et al. Detection of circulating tumour DNA in the blood )(plasma/serum) of cancer patients. Cancer and Metastasis Reviews. 1999, Vol. 18, pages 65-73, see entire document.	1-20
Y	VALIZADEH et al. Expression of E-cadherin-associated molecules (alpha, beta and gamma-catenins a p120) in colorectal polyps. Am. J. Pathology. June 1997, Vol. 150, No. 6, pages 1977-1984, see entire document.	1-20
Y,P	QIN et al. The prognostic molecular markers in hepatocellular carcinoma. World AJ. Gastroenterol. 2002, Vol. 8, No. 3, pages 385-392, see entire document.	1-20
Y,P	US 2002/0106685 A1 (HENNING et al.) 08 August 2002 (08.08.2002), see paragraph 3.	1-20

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

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document member of the same patent family

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# INTERNATIONAL SEARCH REPORT

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## Continuation of B. FIELDS SEARCHED Item 3:

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